

CLAIMS

1. A measurement system for evaluating moving image quality of displays based on the motion of a measuring pattern displayed on a screen of a display device subject to evaluation, the system comprising:
- a rotatable mirror;
 - an image sensor for taking an image of the screen through the mirror;
 - a rotation drive section for rotationally driving the mirror;
 - a photodetector having a detection range covering a part of the screen; and
 - a control section connected to the photodetector and the rotation drive section,
- wherein the control section outputs a trigger signal to the rotation drive section for triggering the rotation drive section to rotate based on a detection signal from the photodetector outputted at a time when the photodetector detects the measuring pattern displayed on the screen, and the control section outputs a control signal to the rotation drive section so that the mirror rotates to follow the motion of the measuring pattern.
2. The measurement system for evaluating moving image quality of displays according to claim 1, wherein the measuring pattern moves on the screen at a uniform velocity.

3. The measurement system for evaluating moving image quality of displays according to claim 1, wherein the control section calculates the moving velocity of the measuring pattern based on a detection signal from the photodetector.

5 4. The measurement system for evaluating moving image quality of displays according to claim 3, wherein the control section calculates the moving velocity of the measuring pattern on any of the following conditions (a) to (c):

- (a) that a width of the measuring pattern is known;
- 10 (b) that the photodetector has a plurality of detection ranges; and
- (c) that the photodetector has a plurality of detection ranges and takes a difference in optical intensity signal between each of the
- 15 detection ranges.

5. The measurement system for evaluating moving image quality of displays according to claim 1, wherein the measuring pattern performs reciprocating oscillation on the screen.

20 6. The measurement system for evaluating moving image quality of displays according to claim 5, wherein the control section triggers the rotation drive section to rotate based on a time at which a peak value or a bottom value of a detection signal of the photodetector is detected or a time at which

25 a rise or decay in a detection signal is detected.

7. The measurement system for evaluating moving image quality of displays according to claim 5, wherein the control section determines a rotation cycle for the rotation drive section based on a cycle of a detection signal of the
5 photodetector.

8. The measurement system for evaluating moving image quality of displays according to claim 1, wherein a rotatable camera and a rotation drive section for rotationally driving the camera are used instead of the combination of a rotatable
10 mirror, an image sensor for taking an image of the screen through the mirror and a rotation drive section for rotationally driving the mirror.

9. The measurement system for evaluating moving image quality of displays according to claim 1, further comprising
15 an illumination apparatus for illuminating the screen of the display device subject to evaluation by spot illumination, wherein the installation position and the angle of a illumination optical axis of the illumination apparatus are fixed with respect to both the photodetector
20 and the rotation drive section.

10. The measurement system for evaluating moving image quality of displays according to claim 1, further comprising an illumination apparatus for illuminating the screen of the display device subject to evaluation with repetitive
25 pulses of light,

wherein the control section measures an angular velocity of the mirror by measuring a distance between images of illumination light pulses projected from the illumination apparatus that are formed on a detection screen of the photodetector during rotation of the mirror.

11. The measurement system for evaluating moving image quality of displays according to claim 1, further comprising an illumination apparatus for illuminating the screen of the display device subject to evaluation,

10 wherein the control section measures an exposure time of the image sensor by measuring a width of an image of illumination light projected from the illumination apparatus that is formed on a detection screen of the image sensor during rotation of the mirror.

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